



Figure 3 is an elevation of a flash diversion grenade made in accordance with a third embodiment of the present invention.

Figure 4 is an elevation of an aerosol-sonic and flash grenade made in accordance with a
5 further embodiment of the present invention.

Best Mode and Other Embodiments of the Invention

As shown in Fig. 1, a diversion grenade 100 comprises a transparent body 102 that
10 contains one or more independent charges of a flash material 104. The flash material may
be strands of magnesium or chemically impregnated fibres or the like which produce a
high intensity flash of short duration. Each charge of flash material 104 is activated by an
electrical initiating element 106 carried on body, for example within a compartment 108.
The initiating element(s) 106 may be triggered by, for example, the release of a spring
15 loaded lever 110 which may be temporarily secured by a safety pin 112.

In some embodiments the initiating element 106 comprises a source of power such as
batteries 114 which supply an activation current to the flash material 104, for example
through electrodes 118. A delay mechanism 116 prevents the current from reaching the
20 flash material 104 until a variable or pre-established interval of time has passed. If
variable, the delay interval can be set from controls 120 external to the body. A capacitive
storage device can be used as a delay mechanism.

In optional embodiments, the grenade carries a tracer light 122 that may be selectively
25 activated by the user. The tracer light 122 emits a second source of light of lower
intensity, such as may be emitted by an incandescent or LED light. The tracer light serves
the purpose of attracting the attention of the personnel for whom the diversion grenade is
intended. It attracts their attention to better insure that they are looking at the grenade 100
when the flash material 104 is activated. The tracer light 104_122 may also provide an
30 indication of the path of the grenade, for the benefit of the grenade's user. The tracer may
be activated immediately upon release of the lever 110 or it may be delayed briefly so as

to not give away the position of the user or thrower. If the delay of the tracer light 104
122 is variable or if its operation is optional at the choice of the user, a control circuit 126
within the compartment 108 may be used in conjunction with a switch or control knob
124 external to the body. The control circuit 126 is adapted to take all user inputs and
5 combine them into a sequence of control signals that are required to produce the effect or
effects desired by the user. The one or more tracer lights 122 may be located within the
transparent body or external to it, or both. The control circuit may also provide pulsed
current to the tracer light so as to achieve a strobe effect that is known to attract more
attention than an uninterrupted light source.

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In preferred embodiments the body is fabricated from a cylindrical transparent or
translucent polymer that is thick enough to withstand the energy emitted by the flash
material without fragmenting, rupturing, dispel fragments or allowing hot material or gas
to escape from the body. In preferred embodiments the activation of the flash material
15 results in little or no noise, particularly when compared to a conventional diversion or
distraction grenade.

In another embodiment, and as shown in Figures 2 and 3, the grenade 200, 300 embodies
a combination of a brilliant flash and noise. The noise is of a high-pitched noise at a
20 frequency that is disturbing or distracting to the person(s) it was designed to affect. As
shown in Figure 2, the noise (or sound) is emitted via a speaker 201 built within the
grenade. The grenade also employs one or more sub-control units comprising optional in-
built noise generator circuit, power supply and amplifier (as required) 202 to power the
one or more speakers, horns or other sound emitters 201. The sub-controls 202 may be
25 activated in unison or otherwise by the control circuit 126. Where two or more emitters
are used, they may be provided at different frequencies, preferably closely spaced
frequencies for maximum distraction effect. The noise or sound need last for only several
seconds, enough time to provide a debilitating, distracting affect. An external switch 203
gives the ability to select noise or no noise prior to deploying the grenade. When
30 employing both noise and flash, the tracer light 122 is preferably initiated first to attract
the attention of the person(s) it was designed to be employed against, and then the flash